## **SIEMENS**

3TC4417-0BK6 **Data sheet** 



Contactor size 2, 2-pole DC-3 and 5, 32 A Auxiliary switch 22 (2 NO + 2 NC) Alternating current operation 120 V AC 60 Hz/110 V AC 50 Hz

product type designation General technical data size of contactor product extension • function module for communication • auxiliary switch Insulation voltage rated value maximum permissible voltage for safe isolation between coll and main contacts acc. to EN 60947-1 shock resistance at rectangular impulse • at AC  7.5g / 5 ms, 3,4g / 10 ms  mechanical service life (switching cycles) • of contactor typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor with added auxiliary switch block typical • of the contactor o	product designation	Contactor
size of contactor  product extension  • function module for communication • function module for communication • auxiliary switch  resistance at rectangular impulse • at AC  shock resistance at rectangular impulse • at AC  rectangular impulse • of contactor typical • of the contactor with added auxiliary switch block typical reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  ambient temperature • during operation • during storage relative humidity at 55 °C acc. to IEC 60068-2-30 maximum  maximum  Main circuit number of poles number of NC contacts for main contacts type of voltage operational current • at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value	product type designation	3TC
product extension  • function module for communication  • auxiliary switch  insulation voltage rated value  maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse  • at AC  7,5g / 5 ms, 3,4g / 10 ms  mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Quablance Prohibitance (Date)  Ambient conditions  ambient temperature  • during operation  • during operation  • during storage  relative humidity minimum  relative humidity at 55 °C acc. to IEC 60068-2-30  maximum  Main circuit  number of poles  number of poles  2  number of NC contacts for main contacts  type of voltage  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 210 V rated value  — at 210 V rated value  — at 21 V rated value  — at 24 V rated value  — at 21 V rated value  — at 24 V rated value  — at 21 V rated value  — at 24 V rated value  — at 24 V rated value  — at 21 V rated value  — at 11 V rated value  — at 11 V rated value  — at 21 V rated value  — at 11 V rated value	General technical data	
• function module for communication • auxiliary switch insulation voltage rated value  maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse • at AC  mechanical service life (switching cycles) • of contactor typical • of the contactor with added auxiliary switch block typical reference code acc. to IEC 81346-2  Question of the contactor with added auxiliary switch block typical ambient temperature • during operation • during storage relative humidity minimum relative humidity at 55 °C acc. to IEC 60068-2-30  maximum  Main circuit number of poles for main current circuit 2 number of NC contacts for main contacts 10 corrected to the contacts of the contact o	size of contactor	2
auxiliary switch insulation voltage rated value maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1 shock resistance at rectangular impulse at AC shock resistance at rectangular impulse at AC of contactor typical at Office contactor with added auxiliary switch block typical reference code acc. to IEC 81346-2 Quadiations reference code acc. to IEC 80088-2-30 quadiations relative humidity minimum relative humidity minimum relative humidity minimum relative humidity minimum relative humidity at 55 °C acc. to IEC 60068-2-30 quadiations resident to the contacts for main contacts quadiations quadia	product extension	
insulation voltage rated value maximum permissible voltage for safe isolation between coil and main contacts ac. to EN 60947-1  shock resistance at rectangular impulse ● at AC  mechanical service life (switching cycles) ● of contactor typical ● of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Quertic substance Prohibitance (Date)  Ambient conditions  ambient temperature ● during operation ● during storage relative humidity at 55 °C acc. to IEC 60068-2-30 maximum  Main circuit number of poles number of poles for main current circuit number of NO contacts for main contacts type of voltage operational current ● at 1 current path at DC-1 — at 24 V rated value — at 110 V rated value ● with 2 current paths in series at DC-1 — at 24 V rated value — at 210 V rated value — at 24 V rated value — at 110 V rated value	<ul> <li>function module for communication</li> </ul>	No
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse	auxiliary switch	Yes
coil and main contacts acc. to EN 60947-1  shock resistance at rectangular impulse  • at AC  mechanical service life (switching cycles)  • of contactor typical  • of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Question of contest continuation of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Question of the conditions  ambient temperature  • during operation • during storage  relative humidity minimum  10 %  relative humidity at 55 °C acc. to IEC 60068-2-30  maximum  Main circuit  number of poles  number of poles for main current circuit  2  number of NO contacts for main contacts  type of voltage  operational current  • at 1 current path at DC-1  — at 24 V rated value  at 20 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • at 110 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1	insulation voltage rated value	800 V
e at AC  mechanical service life (switching cycles)  e of contactor typical  of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  ambient temperature  o during operation outing storage relative humidity minimum relative humidity minimum relative humidity minimum relative humidity at 55 °C acc. to IEC 60068-2-30 maximum  Main circuit  number of poles for main current circuit 2 number of NC contacts for main contacts 2 number of NC contacts for main contacts 0 type of voltage operational current  • at 1 current path at DC-1 — at 24 V rated value — at 120 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value • with 2 current paths in series at DC-1 — at 24 V rated value — at 110 V rated value  32 A  • with 2 current paths in series at DC-1 — at 24 V rated value — at 210 V rated value  32 A  • with 2 current paths in series at DC-1 — at 24 V rated value — at 210 V rated value		300 V
mechanical service life (switching cycles)  of contactor typical  of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Q Substance Prohibitance (Date)  Ambient conditions  ambient temperature  of during operation  of uning storage  relative humidity minimum  relative humidity minimum  relative humidity at 55 °C acc. to IEC 60068-2-30  maximum  Main circuit  number of poles  number of poles 2  number of NO contacts for main contacts 2  number of NO contacts for main contacts 0  type of voltage  operational current  of at 1 current path at DC-1  — at 24 V rated value — at 110 V rated value — at 24 V rated value — at 25 V rated value — at 25 V rated value — at 26 V rated value — at 27 V rated value — at 28 V rated value — at 29 V rated value — at 29 V rated value — at 20 V rated value	shock resistance at rectangular impulse	
of contactor typical     of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Q Substance Prohibitance (Date)  Ambient conditions  ambient temperature     ouring operation     ouring storage     during storage     relative humidity an insurement of poles number of poles for main current circuit     number of poles for main current circuit     number of NC contacts for main contacts     type of voltage     operational current	• at AC	7,5g / 5 ms, 3,4g / 10 ms
of the contactor with added auxiliary switch block typical  reference code acc. to IEC 81346-2  Substance Prohibitance (Date)  Ambient conditions  ambient temperature     oduring operation     during storage     during storage     relative humidity minimum     10 %  relative humidity at 55 °C acc. to IEC 60068-2-30 maximum  Main circuit  number of poles number of NO contacts for main current circuit number of NC contacts for main contacts type of voltage     operational current	mechanical service life (switching cycles)	
reference code acc. to IEC 81346-2 Q Substance Prohibitance (Date) 01.02.2012  Ambient conditions ambient temperature	<ul> <li>of contactor typical</li> </ul>	10 000 000
Substance Prohibitance (Date)  Ambient conditions  ambient temperature  • during operation • during storage • during storage -50 +80 °C  relative humidity minimum relative humidity at 55 °C acc. to IEC 60068-2-30 maximum  Main circuit  number of poles  number of poles or main current circuit 2 number of NO contacts for main contacts 2 number of NC contacts for main contacts type of voltage  operational current • at 1 current path at DC-1  - at 24 V rated value - at 110 V rated value • with 2 current paths in series at DC-1  - at 24 V rated value - at 25 +55 °C - 25 +55 °C - 50 +80 °C - 5	· · · · · · · · · · · · · · · · · · ·	10 000 000
Ambient conditions  ambient temperature  • during operation • during storage  relative humidity minimum  relative humidity at 55 °C acc. to IEC 60068-2-30 maximum  Main circuit  number of poles  number of poles or main current circuit  number of NC contacts for main contacts  type of voltage  operational current  • at 1 current path at DC-1  — at 24 V rated value — at 110 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  • at 110 V rated value  32 A  — at 110 V rated value  32 A  — at 24 V rated value  32 A	reference code acc. to IEC 81346-2	Q
ambient temperature  • during operation • during storage -50 +55 °C  relative humidity minimum 10 %  relative humidity at 55 °C acc. to IEC 60068-2-30 maximum  Main circuit  number of poles 2 number of poles for main current circuit 2 number of NO contacts for main contacts 2 number of NC contacts for main contacts 1 type of voltage  operational current  • at 1 current path at DC-1  —at 24 V rated value —at 110 V rated value 32 A  • with 2 current paths in series at DC-1  —at 24 V rated value 32 A  • with 2 current paths in series at DC-1  —at 24 V rated value 32 A  • with 2 current paths in series at DC-1  —at 24 V rated value 32 A  • with 2 current paths in series at DC-1  —at 24 V rated value 32 A  • with 2 current paths in series at DC-1  —at 24 V rated value 32 A  at 110 V rated value 32 A	Substance Prohibitance (Date)	01.02.2012
• during operation     • during storage     relative humidity minimum     10 %  relative humidity at 55 °C acc. to IEC 60068-2-30	Ambient conditions	
olduring storage     relative humidity minimum     relative humidity at 55 °C acc. to IEC 60068-2-30     maximum  Main circuit     number of poles	ambient temperature	
relative humidity minimum  relative humidity at 55 °C acc. to IEC 60068-2-30 maximum  Main circuit  number of poles  number of poles 2 number of NO contacts for main contacts 2 number of NC contacts for main contacts 0 type of voltage  operational current  • at 1 current path at DC-1  — at 24 V rated value 32 A — at 110 V rated value 32 A  • with 2 current paths in series at DC-1  — at 24 V rated value 32 A  • with 2 current paths in series at DC-1  — at 24 V rated value 32 A  - at 110 V rated value 32 A  • with 2 current paths in series at DC-1  — at 24 V rated value 32 A  - at 110 V rated value 32 A  - at 110 V rated value 32 A  - at 24 V rated value 32 A	<ul><li>during operation</li></ul>	-25 +55 °C
relative humidity at 55 °C acc. to IEC 60068-2-30 maximum  Main circuit  number of poles  number of poles for main current circuit  number of NO contacts for main contacts  number of NC contacts for main contacts  type of voltage  operational current  • at 1 current path at DC-1  — at 24 V rated value — at 110 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value — at 24 V rated value  32 A  • with 2 current paths in series at DC-1  — at 24 V rated value 32 A  - at 110 V rated value 32 A  32 A  32 A	during storage	-50 +80 °C
maximum  Main circuit  number of poles 2 number of poles 5 number of NO contacts for main current circuit 2 number of NO contacts for main contacts 2 number of NC contacts for main contacts 0 type of voltage DC  operational current  • at 1 current path at DC-1  — at 24 V rated value 32 A — at 110 V rated value 32 A  • with 2 current paths in series at DC-1  — at 24 V rated value 32 A  • with 2 current paths in series at DC-1  — at 24 V rated value 32 A  • at 110 V rated value 32 A  • with 2 current paths in series at DC-1  — at 24 V rated value 32 A  — at 110 V rated value 32 A	relative humidity minimum	10 %
number of poles 2 number of poles for main current circuit 2 number of NO contacts for main contacts 2 number of NC contacts for main contacts 0 type of voltage DC operational current  • at 1 current path at DC-1  — at 24 V rated value 32 A — at 110 V rated value 32 A  • with 2 current paths in series at DC-1  — at 24 V rated value 32 A  • at 120 V rated value 32 A  • with 2 current paths in series at DC-1  — at 24 V rated value 32 A  at 110 V rated value 32 A  32 A		95 %
number of poles for main current circuit  number of NO contacts for main contacts  number of NC contacts for main contacts  type of voltage  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  32 A  • with 2 current paths in series at DC-1  — at 24 V rated value  32 A  32 A  32 A	Main circuit	
number of NO contacts for main contacts  number of NC contacts for main contacts  type of voltage  DC  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  32 A  • with 2 current paths in series at DC-1  — at 24 V rated value  32 A  • at 110 V rated value  32 A	number of poles	2
number of NC contacts for main contacts  type of voltage  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  32 A  • with 2 current paths in series at DC-1  — at 24 V rated value  32 A  at 110 V rated value  32 A	number of poles for main current circuit	2
type of voltage  operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  32 A  — at 220 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  32 A  • at 24 V rated value  32 A  32 A	number of NO contacts for main contacts	
operational current  • at 1 current path at DC-1  — at 24 V rated value  — at 110 V rated value  — at 220 V rated value  • with 2 current paths in series at DC-1  — at 24 V rated value  32 A  • with 2 current paths in series at DC-1  — at 24 V rated value  32 A  — at 110 V rated value  32 A	number of NC contacts for main contacts	0
<ul> <li>at 1 current path at DC-1         <ul> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>at 220 V rated value</li> </ul> </li> <li>with 2 current paths in series at DC-1         <ul> <li>at 24 V rated value</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> </ul> </li> </ul>	type of voltage	DC
<ul> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>32 A</li> <li>■ with 2 current paths in series at DC-1</li> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>32 A</li> <li>— at 110 V rated value</li> <li>32 A</li> </ul>	operational current	
<ul> <li>— at 110 V rated value 32 A</li> <li>— at 220 V rated value 32 A</li> <li>• with 2 current paths in series at DC-1</li> <li>— at 24 V rated value 32 A</li> <li>— at 110 V rated value 32 A</li> </ul>	• at 1 current path at DC-1	
<ul> <li>at 220 V rated value</li> <li>with 2 current paths in series at DC-1</li> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>32 A</li> <li>32 A</li> <li>32 A</li> <li>32 A</li> </ul>	— at 24 V rated value	32 A
• with 2 current paths in series at DC-1  — at 24 V rated value 32 A  — at 110 V rated value 32 A	— at 110 V rated value	32 A
<ul> <li>at 24 V rated value</li> <li>at 110 V rated value</li> <li>32 A</li> <li>32 A</li> </ul>	— at 220 V rated value	32 A
— at 110 V rated value 32 A	<ul><li>with 2 current paths in series at DC-1</li></ul>	
	— at 24 V rated value	32 A
— at 220 V rated value 32 A	— at 110 V rated value	32 A
	— at 220 V rated value	32 A

— at 440 V rated value	32 A
— at 600 V rated value	32 A
— at 750 V rated value	32 A
<ul> <li>at 1 current path at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	32 A
— at 110 V rated value	32 A
— at 220 V rated value	32 A
— at 440 V rated value	29 A
— at 600 V rated value	21 A
— at 750 V rated value	7.5 A
operating power	
• at DC-1	
— at 110 V rated value	3.5 kW
— at 220 V rated value	7 kW
— at 440 V rated value	14 kW
— at 750 V rated value	24 kW
• at DC-3 at DC-5	
— at 110 V rated value	2.5 kW
— at 220 V rated value	5 kW
— at 440 V rated value	9 kW
— at 600 V rated value	9 kW
— at 750 V rated value	4 kW
operating frequency	TAVY
• at DC-1 maximum	1 500 1/h
• at DC-3 maximum	750 1/h
at DC-5 maximum     at DC-5 maximum	750 1/h
• at DC-3 maximum	750 1/11
Control circuit/ Control	
type of voltage of the control supply voltage	AC
type of voltage of the control supply voltage control supply voltage at AC	
type of voltage of the control supply voltage	110 V
type of voltage of the control supply voltage control supply voltage at AC	
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value operating range factor control supply voltage rated	110 V
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC	110 V 120 V
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz	110 V 120 V 0.8 1.1
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz	110 V 120 V 0.8 1.1 0.85 1.1
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 50 Hz  • at 60 Hz	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A 0.28
type of voltage of the control supply voltage control supply voltage at AC  • at 50 Hz rated value • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz • at 60 Hz  inductive power factor with closing power of the coil • at 50 Hz • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz • at 60 Hz  inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz  inductive power factor with the holding power of the coil • at 50 Hz • at 60 Hz	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A 0.28 0.29 0.3
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  arcing time  Auxiliary circuit	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A 0.28 0.29 0.3 20 30 ms
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  arcing time  Auxiliary circuit  number of NC contacts for auxiliary contacts	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A 0.28 0.29 0.3 20 30 ms
type of voltage of the control supply voltage  control supply voltage at AC  • at 50 Hz rated value  • at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  • at 50 Hz  • at 60 Hz  apparent pick-up power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with closing power of the coil  • at 50 Hz  • at 60 Hz  apparent holding power of magnet coil at AC  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil  • at 50 Hz  • at 60 Hz  inductive power factor with the holding power of the coil	110 V 120 V 0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A 0.28 0.29 0.3 20 30 ms
type of voltage of the control supply voltage control supply voltage at AC	110 V 120 V  0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A 0.28  0.29 0.3 20 30 ms
type of voltage of the control supply voltage  control supply voltage at AC  at 50 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  at 50 Hz  at 60 Hz  apparent pick-up power of magnet coil at AC  at 50 Hz  at 60 Hz  inductive power factor with closing power of the coil  at 50 Hz  at 60 Hz  inductive power of magnet coil at AC  at 50 Hz  at 60 Hz  apparent holding power of magnet coil at AC  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil	110 V 120 V  0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A 0.28  0.29 0.3 20 30 ms
type of voltage of the control supply voltage  control supply voltage at AC  at 50 Hz rated value  at 60 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  at 50 Hz  at 60 Hz  apparent pick-up power of magnet coil at AC  at 50 Hz  at 60 Hz  inductive power factor with closing power of the coil  at 50 Hz  at 60 Hz  apparent holding power of magnet coil at AC  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  at 60 Hz  at 6	110 V 120 V  0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A 0.28  0.29 0.3 20 30 ms
type of voltage of the control supply voltage  control supply voltage at AC  at 50 Hz rated value  operating range factor control supply voltage rated value of magnet coil at AC  at 50 Hz  at 60 Hz  apparent pick-up power of magnet coil at AC  at 50 Hz  at 60 Hz  inductive power factor with closing power of the coil  at 50 Hz  at 60 Hz  inductive power of magnet coil at AC  at 50 Hz  at 60 Hz  apparent holding power of magnet coil at AC  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  at 60 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil  at 50 Hz  inductive power factor with the holding power of the coil	110 V 120 V  0.8 1.1 0.85 1.1 79 V·A 68 V·A 95 V·A 0.83 0.86 0.79 11 V·A 10 V·A 12 V·A 0.28  0.29 0.3 20 30 ms

operational current at AC-12 maximum	10 A
operational current at AC-15	5.0 A
<ul> <li>at 230 V rated value</li> <li>at 400 V rated value</li> </ul>	5.6 A
	3.6 A 2.5 A
at 500 V rated value	2.5 A
<ul> <li>operational current at DC-12</li> <li>at 24 V rated value</li> </ul>	10 A
at 48 V rated value	10 A
at 46 V rated value     at 60 V rated value	10 A
at 110 V rated value     at 110 V rated value	3.2 A
at 110 V rated value     at 125 V rated value	2.5 A
at 220 V rated value     at 220 V rated value	0.9 A
at 600 V rated value	0.22 A
operational current at DC-13	0.22 A
• at 24 V rated value	10 A
at 48 V rated value	5 A
at 60 V rated value	5 A
at 110 V rated value	1.14 A
at 110 V rated value     at 125 V rated value	0.98 A
at 125 V rated value     at 220 V rated value	0.98 A
at 600 V rated value	0.46 A 0.07 A
UL/CSA ratings	0.017.
contact rating of auxiliary contacts according to UL	A600 / P600
Short-circuit protection	7,000 / 1 000
design of the fuse link	
for short-circuit protection of the main circuit	
with type of coordination 1 required	2 x 3NA3020 (50 A) in series (750 V, 3 kA)
with type of assignment 2 required	2 x 3NA3020 (50 A) in series (750 V, 3 kA)
for short-circuit protection of the auxiliary switch	gG: 16 A (500 V, 1 kA)
required	go. 107 (000 V, 1104)
Installation/ mounting/ dimensions	
mounting position	+/-22,5° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; standing, on horizontal mounting surface
factoning mothed	
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
side-by-side mounting	
	according to DIN EN 50022
side-by-side mounting	according to DIN EN 50022 Yes
• side-by-side mounting height	according to DIN EN 50022 Yes 85 mm
side-by-side mounting     height     width	according to DIN EN 50022 Yes 85 mm 70 mm
side-by-side mounting     height     width     depth	according to DIN EN 50022 Yes 85 mm 70 mm
• side-by-side mounting height width depth required spacing	according to DIN EN 50022 Yes 85 mm 70 mm
side-by-side mounting  height  width  depth  required spacing      with side-by-side mounting	according to DIN EN 50022 Yes 85 mm 70 mm 104 mm
side-by-side mounting     height     width     depth     required spacing         • with side-by-side mounting         — forwards	according to DIN EN 50022 Yes 85 mm 70 mm 104 mm
<ul> <li>side-by-side mounting</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> <li>with side-by-side mounting</li> <li>— forwards</li> <li>— backwards</li> </ul>	according to DIN EN 50022 Yes 85 mm 70 mm 104 mm
side-by-side mounting     height     width     depth  required spacing	according to DIN EN 50022 Yes 85 mm 70 mm 104 mm  15 mm 0 mm 10 mm
side-by-side mounting  height  width  depth  required spacing      with side-by-side mounting      — forwards      — backwards      — upwards      — downwards	according to DIN EN 50022 Yes 85 mm 70 mm 104 mm  15 mm 0 mm 10 mm 10 mm
side-by-side mounting     height     width     depth     required spacing         • with side-by-side mounting             — forwards             — backwards             — upwards             — downwards             — at the side	according to DIN EN 50022 Yes 85 mm 70 mm 104 mm  15 mm 0 mm 10 mm 10 mm
side-by-side mounting     height     width     depth  required spacing	according to DIN EN 50022 Yes 85 mm 70 mm 104 mm  15 mm 0 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing  with side-by-side mounting — forwards — backwards — upwards — downwards — at the side for grounded parts — forwards — forwards	according to DIN EN 50022 Yes 85 mm 70 mm 104 mm  15 mm 0 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting     height     width     depth  required spacing	according to DIN EN 50022 Yes  85 mm 70 mm 104 mm  15 mm 0 mm 10 mm 10 mm 10 mm 10 mm 0 mm
side-by-side mounting height width depth required spacing  with side-by-side mounting — forwards — backwards — upwards — downwards — at the side for grounded parts — forwards — backwards — upwards — at the side  of grounded parts — forwards — backwards — upwards	according to DIN EN 50022 Yes 85 mm 70 mm 104 mm  15 mm 0 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing  with side-by-side mounting — forwards — backwards — upwards — downwards — at the side for grounded parts — forwards — backwards — at the side  of or grounded parts — at the side — backwards — upwards — backwards — upwards — at the side	according to DIN EN 50022 Yes  85 mm 70 mm 104 mm  15 mm 0 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth  required spacing  with side-by-side mounting — forwards — backwards — upwards — downwards — at the side for grounded parts — forwards — backwards — upwards — at the side — downwards — at the side — downwards — at the side — downwards	according to DIN EN 50022 Yes  85 mm 70 mm 104 mm  15 mm 0 mm 10 mm 10 mm 10 mm 10 mm 10 mm 10 mm
side-by-side mounting height width depth required spacing  with side-by-side mounting — forwards — backwards — upwards — downwards — at the side for grounded parts — forwards — backwards — at the side of the side — the side — the side — downwards — at the side — backwards — upwards — at the side — downwards — for live parts	according to DIN EN 50022 Yes  85 mm 70 mm 104 mm  15 mm 0 mm 10 mm
side-by-side mounting     height  width  depth  required spacing      with side-by-side mounting      — forwards      — backwards      — upwards      — downwards      — at the side      for grounded parts      — forwards      — backwards      — at the side      for grounded parts      — forwards      — backwards      — upwards      — at the side      — downwards      — at the side      — downwards      • for live parts      — forwards	according to DIN EN 50022 Yes  85 mm 70 mm 104 mm  15 mm 0 mm 10 mm
side-by-side mounting     height     width  depth  required spacing	according to DIN EN 50022 Yes  85 mm 70 mm 104 mm  15 mm 0 mm 10 mm
side-by-side mounting     height     width  depth  required spacing	according to DIN EN 50022 Yes  85 mm 70 mm 104 mm  15 mm 0 mm 10 mm

type of electrical connection	screw-type terminals
<ul> <li>for main current circuit</li> </ul>	screw-type terminals
for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
<ul> <li>for main contacts</li> </ul>	
<ul><li>— solid or stranded</li></ul>	2x (2,5 10 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1.5 4 mm²)
type of connectable conductor cross-sections	
<ul> <li>for auxiliary contacts</li> </ul>	
<ul> <li>solid or stranded</li> </ul>	2x (1 2,5 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.75 1.5 mm²)
Safety related data	
protection class IP on the front acc. to IEC 60529	IP00
Certificates/ approvals	

## **General Product Approval**

**Functional Safety/Safety of Machinery** 









Type Examination **Certificate** 

Type Examination **Certificate** 

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping

**UK Declaration of Conformity** 



**Miscellaneous** 

Type Test Certificates/Test Report

Special Test Certific-<u>ate</u>



other **Dangerous Good** 

Transport Informa-**Confirmation** 

tion

## **Further information**

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TC4417-0BK6

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0BK6

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0BK6

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

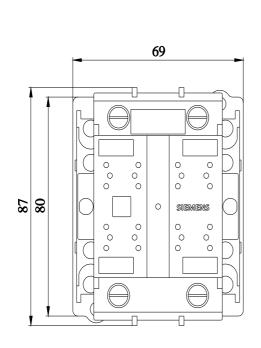
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3TC4417-0BK6&lang=en

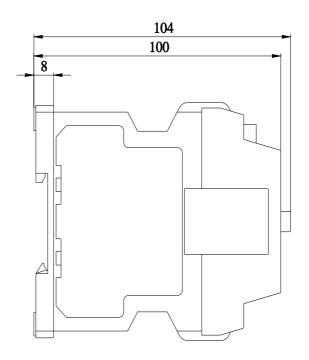
Characteristic: Tripping characteristics, I2t, Let-through current

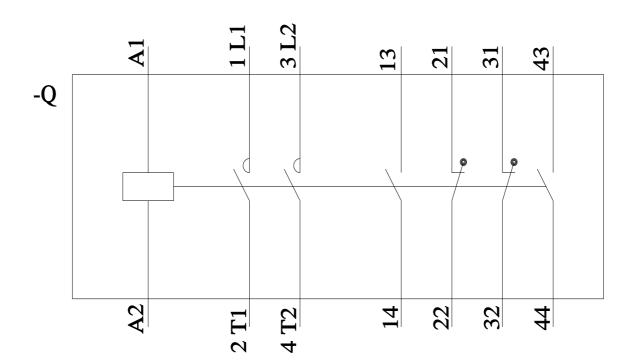
https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0BK6/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0BK6&objecttype=14&gridview=view1







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